

mination, to satisfy ourselves that the bladder was free from any further foreign substance. At this time ether was given, and every part of the bladder explored with the catheter, without the slightest complaint from the patient. No obstruction was made to the free use of the instrument by the irritability of the bladder, which had on the day previous so much impeded the necessary manœuvres.

Although the experience of lithotripsy under the use of ether is thus far limited to a few cases, yet we think these are sufficient to show that this operation will probably assume greater importance, and come into more general use, now that a repetition of the requisite manipulation can be made without suffering. In many cases which hitherto must have been submitted to lithotomy, on account of the extreme irritability of the organs concerned, lithotripsy will hereafter be adopted in preference.

The case of cystic oxide calculus given above is interesting from the extreme rarity of this kind of stone. M. Civiale, whose great experience is well known, in his work on the stone and gravel, published in 1840, states that he has met with but four cases of it. In the Hunterian Museum, out of six hundred and forty-nine calculi, it appears by the catalogue there are but three of the cystic oxide.

It has been stated that an hereditary disposition existed in many of these cases; two of those under the care of M. Civiale were brothers. In the present case this disease was not inherited, according to the account of the patient.

---

ART. IV.—*On Nitrate of Silver in Jaundice.* By J. F. PEBBLES, M. D., of Petersburg, Va.

THE value of nitrate of silver in jaundice was revealed to me incidentally. A man, who had been completely jaundiced for a period of two months, consulted me about some troublesome stomach symptoms. The patient had imbibed the impression that mercurials would be deemed necessary for the removal of his jaundice, and having a deep-rooted prejudice against that whole class of remedies, he begged that I would take no notice of that disease, which really annoyed him but little, and prescribe exclusively for his gastric distress. I ordered him the crystallized nitrate of silver, conceiving that remedy indicated for these latter symptoms.

He was not seen again for a week. The jaundice, then, had entirely disappeared, and the patient had already discontinued the medicine, believing himself cured. At my suggestion, however, he continued its use several days longer, and since that time, a period of nearly three years, he has had no return of the icterus, and has in every respect enjoyed excellent health. Since

then I have on many occasions tested the value and verified the efficacy of this remedy in the treatment of chronic idiopathic jaundice.

I am aware that various remedies have been from time to time promulgated, and held in high repute for the treatment of this disease, or more properly, *symptom* of disease; and that many such should find favour, is not inconsistent with our knowledge of the nature of jaundice.

Whilst thus admonished against an unnecessary enlargement of this list, I am yet emboldened to urge this simple method of treatment in uncomplicated jaundice,—in those cases, in short, in which the removal of the hue of the tissues is the most prominent indication; for the following reasons: First, it is prompt and efficacious; secondly, it produces neither sickness nor disturbance of any kind; and lastly, its dose is small, and the form of its administration agreeable and convenient. The latter reasons are really more weighty than would seem at first sight. Many jaundiced persons are but little complaining, and often are about as usual. To such, it is clear a remedy would strongly recommend itself, which was characterized by an insensible action, and an entire absence of all annoying influences.

Jaundice we know is removed every day by various means, but it is surely a desideratum with the physician, one which is always appreciated by the patient, to select those agents which will effect his object with the least possible inconvenience to the sufferer.

It is not my purpose to go into the pathology of jaundice. But, as it has already been intimated, that the treatment is not of universal application, it is necessary that I should expose the principles which have guided me in its employment. My remarks, therefore, shall be confined to the delineation of so much of its nature as will be necessary for this object.

Icterus is often of simple origin. A man may become completely jaundiced before he is aware of any very marked deviation from his usual health.

An emotion of the mind has been known to produce it. In such cases there always exists a *predisposition*; and I have observed that this predisposition consists in a chronic gastric disorder, often too little manifested to excite the patient's attention. Dyspepsia and chronic gastric irritation, therefore, are the chief predisposing causes of this form of jaundice. Three-fourths of these cases coming under my notice have occurred in persons addicted to the excessive use of tobacco. The method by which this habit produces the predisposition is of easy demonstration; it establishes chronic irritation of the gastric mucous membrane, which irritation, as well as the jaundice which follows, is speedily removed by the use of the nitrate. The co-existence of jaundice with disease of the *primæ viæ* is well enough known. It generally, to some extent, accompanies ileus. Nor is the recommendation of remedies for its removal, addressed solely to the stomach, possessed of any novelty. In simple chronic idiopathic jaundice the stomach is always the most complaining. It is often preceded by a disposition to spit up the food, of several months' duration. Then the urine is observed to gain, and the feces to lose, colour. The gastric

distress increases as the disease progresses; and when it is fully developed the blandest article of diet creates a most unpleasant feeling of distension and weight in the stomach. There is, in addition, pain in the epigastrium, extending around, and sometimes covering, the entire hepatic region. It is in such cases as these that the nitrate of silver has proved itself of such benefit.

The method by which the remedy is supposed to act in the cure of jaundice, can be readily divined after the above hints. This method is, in my opinion, clearly illustrated by its prompt action in the following case. A man, who, previously to the attack, had suffered several months from a tendency to diarrhoea, whilst just beginning to convalesce from pneumonia rapidly became jaundiced. His acute pulmonary disease had been treated by local depletion, calomel, and opium, and he was slightly pyralized. After having for some days a dry and loaded tongue, the crusts broke away leaving a clean, glazed, and very red surface.

It was precisely at this juncture that jaundice manifested itself. Here there existed unequivocal testimony of gastro-enteric irritation. The condition of the mucous surface of the internal organs became itself a separate disease, and, as the pneumonia was decidedly on the wane, nitrate of silver was ordered for its removal.

The patient took two doses, and in eighteen hours the hue of the tissues had disappeared, and there followed a rapid decrease of colour in the urine with return of healthy alvine discharges. On the third day not a trace of the jaundice existed. Nitrate of silver according to this, it appears, cures jaundice by modifying the condition of the mucous membrane of the stomach and *primæ viæ*.

Stronger proof illustrating this point could not, in my opinion, be adduced than that afforded by the case just quoted.

This view of its mode of operation, it will be perceived, brings down the pathology of jaundice within very narrow limits; and the question, Can simple gastro-enteric disorder of any kind give rise to jaundice? at once arises. Only an approximation to a perfect solution of such question is at present attainable. Facts sufficient exist, however, it appears, to warrant such an inference. Drs. Graves and Stokes long ago held that jaundice might arise from the presence of glairy mucus in the duodenum, obstructing the orifice of the common duct; and most writers mention that it may arise from turgescence of the coats of this intestine. Now, the presence of viscid mucus in the duodenum clearly indicates a modified and deranged state of its mucous surface, a fact which, if the views we have above expressed be correct, is of itself sufficient to give rise to jaundice without the supposition of an obstruction of the common duct. That such obstruction is not necessary to originate jaundice is well known. The disease does not always exist when it occurs, and it is often present when there is proof of no such obstruction existing. But whether this be necessary or not, we have the authority of these able physicians that the disease may *originate* in the duodenum. This is one of the most interesting points in the

whole inquiry. It separates the disease—we mean that form of it under consideration—from the idea of hepatic disorder, and has great practical bearing upon its treatment.

I confess, my opinion, that original hepatic disorder is absent in simple idiopathic jaundice, if not formed, was certainly confirmed by witnessing the action of nitrate of silver in its removal. In none of the cases treated have I found it necessary to resort to mercurials or other cholagogues, to restore proper hepatic action; on the contrary, I have invariably found this to occur without such agents, indicated by healthily coloured alvine discharges, appearing always subsequently, although in a few days after the skin begins to clear, and by the recovery of the tone of the digestive organs.

The part which the liver plays in its production is not of easy solution. We know that extensive disease of the organ may exist without jaundice.

The idea of cystic obstruction causing re-absorption of bile is not now universally entertained by the best pathologists. Pain in the hepatic region, it is true, accompanies the disorder. We know, also, that it is attended by nephritic uneasiness; yet no one will say that disease of the kidneys exists, apart from an irritation of those organs, palpably due to the excess of new matter in the urine. A similar cause, it may be fairly urged, gives rise to the hepatic uneasiness.

The tendency of modern investigation points more to the assimilating functions for an explanation of jaundice. Bile pigment is in excess. Sherer's analysis of the bile found in the gall-bladder of a jaundiced girl, demonstrated that its preponderance over that in healthy bile was enormous. He contends also that only this pigment and not bile elements is found in the urine. Simon, although he asserts that these latter do exist in the urine of jaundiced patients, yet evidently shows that their presence is not universal. Lecanu found only bile pigment in the blood of jaundiced patients. Further speculation respecting the origin of jaundice, however interesting, is not necessary for our present design. We set out to prove that there was nothing in the nature of idiopathic jaundice inconsistent with the idea of nitrate of silver, from its known effects on the system, having power to remove it, and we trust we have effected our object. Only a few words will be necessary to devote to its manner of administration.

The treatment is begun by giving  $\frac{3}{4}$  to a grain of the crystallized nitrate of silver twice a day. It is important that it be given on an empty stomach. The remedy I have found will remove the disease without this precaution, but much sooner with it. Ten days I have found the utmost time required; often improvement is observed in the hue of the skin on the second day.

But the patient experiences great relief immediately. The uneasiness of the stomach and the sense of fulness after eating disappears, and there is improvement in the digestion. When the disease is accompanied by constipation, as it often is, for the sake of convenience a laxative is combined. A pill, given twice a-day, of 1 gr. argent. nitr. cryst., 3 grs. p. rhei, ext. taraxac. qs., answers a good purpose. Of course the patient must observe an unirritating diet.